

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

INTERNATIONAL BUSINESS MACHINES CORPORATION,)	TGF CEVGF RWDNKE XGTUKP
)	
)	
Plaintiff,)	
)	
v.)	C.A. No. 16-122-LPS
)	
GROUPON, INC.,)	
)	
Defendant.)	

**MEMORANDUM IN SUPPORT OF MOTION FOR
SUMMARY JUDGMENT OF DEFENDANT GROUPON, INC.**

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IBM alleges that Groupon infringes U.S. Patent Nos. 5,796,967 (the “’967 patent”), 7,072,849 (the “’849 patent”), 5,961,601 (the “’601 patent”), and 7,631,346 (the “’346 patent”). Because Groupon’s technology does not infringe any of the asserted patents as a matter of law, Groupon respectfully requests the Court to enter a summary judgment of non-infringement. If the Court finds that IBM’s infringement theories for the ’967 and ’849 patents don’t fail as a matter of law, Groupon requests that the Court enter summary judgment of invalidity of these two patents. Groupon also seeks a partial summary judgment finding that the ’601 patent is not entitled to a priority date earlier than its filing date.

NATURE AND STAGE OF THE PROCEEDINGS

IBM filed this case on March 2, 2016. (D.I. 1.) The Court issued its claim construction order on August 3, 2017. (D.I. 120 (“CC Order”).) Fact discovery closed on September 15, 2017 and the parties completed expert discovery on February 16, 2018. The Pretrial Conference is currently set for June 8, 2018, and trial is scheduled to start on July 16. (*See* D.I. 17.)

SUMMARY OF ARGUMENT

1. IBM cannot show that Groupon infringes the related ’967 and ’849 patents because the accused systems do not generate the required partitions as a matter of law, and, as the Court already determined in the *Priceline* case, website and mobile applications like Groupon’s do not store advertising objects as the claims of the ’849 patent require. And if IBM’s infringement theory does not fail as a matter of law, it renders the patents indefinite and invalid under 35 U.S.C. § 112.

2. IBM cannot show that Groupon infringes the ’601 patent because Groupon’s architecture is fundamentally different from the one of the patent describes and it does not track state in a manner required by the claims.

3. IBM cannot show that Groupon infringes claims 2, 5, 8, and 10 of the ’346 patent

as a matter of law because—as its own expert admits—the accused systems do not perform the step of claim 2 and IBM proffers no evidence that Groupon performs the steps of claim 5 from which claims 8 and 10 depend.

4. IBM cannot establish that the '601 patent is entitled to a priority date earlier than its filing date because it does not have clear and convincing evidence demonstrating the conception of the invention and diligence in the reduction of that invention to practice. The only evidence it has is inventor testimony and source code written by the inventor, which is insufficient as a matter of law.

STATEMENT OF FACTS

IBM asserts four patents in this litigation. Two of those patents, the '967 patent and the '849 patent (the “Filepp patents”), are related and have similar specifications. The '967 patent is titled “Method for Presenting Applications in an Interactive Service.” The '849 patent is titled “Method for Presenting Advertising in an Interactive Service.” The third patent, the '601 patent, is titled “Preserving State Information in a Continuing Conversation between a Client and Server Networked via a Stateless Protocol.” The last patent, the '346 patent, is titled “Method and System for a Runtime User Account Creation Operation within a Single-Sign-On Process in a Federated Computing Environment.”

IBM accuses Groupon’s website and mobile applications of infringing the asserted patents. Groupon provides an e-commerce marketplace offering goods and promotional deals from local merchants selling activities, travel, goods, and services. Users can view the available offers by visiting Groupon’s website or using Groupon’s mobile applications on their iPhones or Android devices.

ARGUMENT

I. **IBM CANNOT SHOW INFRINGEMENT OF THE FILEPP PATENTS AS A MATTER OF LAW.**

IBM alleges that Groupon’s website infringes claims 1-7, 12, and 17 the ’967 patent and the same website and Groupon’s mobile applications infringe claims 1-9, 12-22, and 25 of the ’849 patent. IBM cannot meet its burden to show the alleged infringement as a matter of law.

A. **Overview of the Filepp patents**

The two Filepp patents are directed to generating screen displays for interactive applications with integrated advertisements and commands to navigate within and between the applications. (Declaration of Saina Shamilov in Support of Groupon’s Motion for Summary Judgment (“Shamilov Decl.”), Ex. 1 (’967 patent) at 2:41-3:8; *see also id.* at 9:41-44; Shamilov Decl., Ex. 2 (’849 patent) at 2:14-67; *see also id.* at 3:5-67.) The generated screen displays are broken into partitions (or portions), each for presenting certain types of information: a partition for displaying applications, a partition for displaying advertisements, and a partition for displaying commands, including commands for navigating across applications. (*See, e.g.*, Ex. 1 at abstract, 3:1-16; Ex. 2 at abstract, 3:10-15, 10:28-37.) All asserted claims of the ’967 patent require “a first partition” and “a second partition” of the claimed screen display. For example, the only independent claim, claim 1, recites:

A method for presenting interactive applications on a computer network, the network including a multiplicity of user reception systems at which respective users may request a multiplicity of available applications, the respective reception systems including a monitor at which the applications requested can be presented as one or more screens of display, the method comprising the steps of:

a. generating a screen display at a respective reception system for a requested application, the screen display being generated by the respective reception system from data objects having a prescribed data structure, at least some of which objects may be stored at the respective reception system, **the screen display including a plurality of partitions**, the partitions being constructed from objects, the objects

being retrieved from the objects stored at the respective reception system, or if unavailable from the objects stored at the respective reception system, then from the network, such that at least some of the objects may be used in more than one application;

b. generating at least **a first partition** for presenting applications; and

c. generating concurrently with the first partition at least **a second partition** for presenting a plurality of command functions, the command functions including at least a first group which are selectable to permit movement between applications.

(Emphasis added.)

The five independent claims of the '849 patent (claims 1, 8, 13, 14, and 21) are similar. Whereas claim 1 of the '967 patent is directed to a “method for presenting interactive *applications*,” the '849 patent claims are directed to a “method for presenting *advertising*.” And whereas claim 1 of the '967 patent recites “partitions,” the '849 patent claims “portions.”

B. Groupon’s website does not infringe the '967 patent as a matter of law.

Claim 1 of the '967 patent requires “generating at least a first partition for presenting applications” and “generating concurrently with the first partition at least a second partition for presenting a plurality of command functions.” Groupon’s website does not meet these limitations as a matter of law.¹

1. IBM cannot show that Groupon’s website generates a first partition for displaying applications as required by the claims.

The claims require “generating at least a first partition for presenting applications.” The Court construed “a first partition for presenting applications” as “a first area for presenting applications.” (CC Order at 5.) Thus, to infringe, Groupon’s website must generate an area distinct

¹ IBM’s infringement theory under the doctrine of equivalents does not apply to any reasons Groupon does not infringe the '967 patent presented herein. Further, IBM’s expert included his doctrine of equivalents theory only in its reply report, failing to mention it at all in his opening report. This belated inclusion of the theory is prejudicial to Groupon since Groupon’s expert could not respond to it and thus should be stricken.

from the applications it is to present and that single area must be for presenting multiple applications. IBM has no evidence that Groupon generates such an area.

IBM's technical expert, Dr. Douglas C. Schmidt, has opined that an "application" in Groupon's website is a sequence of webpages in a specific category of offered deals, such as Goods, Local, Getaways, and Coupons.² (*See, e.g.,* Shamilov Decl., Ex. 3 ¶ 18.) Assuming arguing that these are the applications required by the claims of the '967 patent, the area for presenting them must be separate and distinct from the applications themselves. *See Ethicon Endo-Surgery, Inc., v. U.S. Surgical Corp.*, 93 F.3d 1572, 1579 (Fed. Cir. 1996) (finding that different claim terms are presumed to have different meanings and reversing lower court's ruling that a "pusher assembly" and a "pusher bar" described a single element). Indeed, this is consistent with the specification that describes the area for presenting applications as separate and distinct from the applications that are displayed in that area. (Ex. 1 at 9:37-40 ("With reference to FIG. 3a, in accordance with the invention, each page 255 is formatted with a service interface having page partitions 250, 260, 280 and 290 (*not to be confused with application partitions.*") (emphasis added).) IBM's technical expert, however, [REDACTED]

[REDACTED] (Shamilov Decl., Ex. 4 ("Schmidt Depo.") at 31:13-19.) And he could not answer in his deposition whether, in his opinion, Groupon infringes the '967 patent if the [REDACTED]

[REDACTED] (*Id.* at 85:9-18, 87:10-20.) Nor do his reports show that Groupon's website generates an area for displaying applications that is distinct from the applications themselves.

² The parties agreed to construe the term "application" as "information events composed of a sequence of one or more pages opened at a screen." (Supplemental Joint Claim Construction Chart ("Joint CC Chart") at 23, D.I. 64.)

To the contrary, in his reports, Dr. Schmidt consistently explains that, in his opinion, Groupon’s website generates the first area for presenting applications because the “applications” themselves have partitions. He points to [REDACTED]

[REDACTED]—into sections. (Shamilov Decl., Ex. 5 ¶ 30; *id.*, Ex. 6 ¶¶ 51-63; Schmidt Depo. at 28:18-31:12; 52:5-13.) As an analogy, a book chapter does not define an area in a book where that chapter is presented, the same way an abstract in a patent does not define an area where that abstract is placed. Thus, Dr. Schmidt does exactly what the patent says not to: He equates “partitions” within an application with the required area for displaying applications. (Ex. 3 ¶ 103; *see also id.* ¶ 107

[REDACTED] ¶ 152 [REDACTED]

[REDACTED] ¶ 104)

The claims do not cover generating an application with partitions, they require generating a first area for presenting applications. As an analogy, the claim element requires generating a sheet pan for holding cakes and IBM claims that Groupon meets this claim limitation because it provides cakes. But a cake is not a sheet pan that holds that cake. Nor is the first area the same as the application to be presented there. The claim language is clear, the first area has to be distinct from the applications it displays. For good reason, neither IBM nor its expert has any evidence that Groupon generates such an area. There is none. Indeed, when asked at his deposition the size of the purported first area in his mapping of the claim to Groupon, Dr. Schmidt responded that he

[REDACTED]
(Schmidt Depo. at 44:4-10.) How can one identify an area without knowing where it starts and where it ends?

Further, in his deposition, when asked whether different “applications” of Groupon’s website, such as Local and Goods deal categories, are presented in the same area, Dr. Schmidt responded that [REDACTED]

[REDACTED] (*Id.* at 72:24-73:13.) He eventually admitted, however, that [REDACTED]

[REDACTED] (*Id.* at 67:1-69:12.) But the claims require a single—the same—“first area” for displaying multiple applications. Groupon’s website does not generate such an area, and IBM and its expert have no evidence to the contrary.

2. IBM cannot show that Groupon’s website generates concurrently with the first partition a second partition for presenting a plurality of command functions as required by the claims.

The claims of the ’967 patent also require “generating concurrently with the first partition at least a second partition for presenting a plurality of command functions.” The Court construed “a second partition for presenting a plurality of command functions” as “a second area for presenting a plurality of command functions” and the parties agreed that “a command function” is a “function that enables the user to interact with the reception system and other elements of the network.” (CC Order at 5; Joint CC Chart at 12.)

According to Dr. Schmidt, the command functions in Groupon’s website are [REDACTED]

[REDACTED]³ (Ex. 6 ¶ 115)

³ [REDACTED] (Ex. 5 ¶ 203.)

and the second area, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] (Ex. 6 ¶ 175). He

then explained [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] (Ex. 3 ¶ 174; Ex. 6 ¶ 63.) But when a user scrolls through a webpage, the links and what Dr. Schmidt claims is the second area disappear—they are not concurrently displayed with [REDACTED] as shown in one of Dr. Schmidt's figures reproduced to the right.⁴ And that is because these links are simply part of a displayed webpage, they are not separately displayed in a second area of the screen, as the claims require.

Dr. Schmidt's infringement analysis is based on an arbitrary drawing of boxes around different content within the same Groupon's webpages. Although in its claim construction order the Court stated that the claimed first and second partitions can be overlapping, allowing the second partition to be content *within* the first partition eviscerates the requirement that a display screen have two separate areas for displaying different information. (CC Order at 7.) Dr. Schmidt's

[REDACTED] (Schmidt Depo. at 123:3-11.) And

[REDACTED] (*Id.* at

48:9-19 [REDACTED]

[REDACTED].) Similarly, his first area for presenting applications is in fact [REDACTED]

[REDACTED]

⁴ This figure is from Dr. Schmidt's reply report truncated on the bottom for space reasons. (Ex. 6 ¶ 164.)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] (*Id.* at 131:5-12.)

Groupon’s website is replete with hyperlinks that [REDACTED] Every image and text that retrieves information from Groupon’s servers is a command function, according to Dr. Schmidt’s own mappings. Thus, the entire webpages are both applications and sets of command functions—there are no areas that present or demarcate one from the other.

If the claims are as broad as IBM wants them to be—any portion of a webpage can be a first partition, any portion of a webpage can be a second partition, an application can include command functions, a command function can be part of an application—then the claims are simply indefinite and they do not provide one skilled in the art with an understanding of what webpage falls into the claims and what does not. *See Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1378 (Fed. Cir. 2015) (confirming that claims must “inform those skilled in the art about the scope of the invention with reasonable certainty”) (citation omitted).

Groupon respectfully requests the Court to find as a matter of law that its website does not infringe the ’967 patent, or that the claims of that patent are invalid under 35 U.S.C. § 112, 6.

C. Neither Groupon’s website nor its mobile applications infringe the ’849 patent as a matter of law.

The Court has already determined that websites and mobile applications such as the ones provided by Groupon cannot infringe the ’849 patent as a matter of law. (*See Int’l Bus. Machs. Corp. v. Priceline Grp. Inc.*, No. 15-cv-137-LPS-CJB (“*IBM v. Priceline*”), D.I. 525 (“*Priceline Order*”).) In addition, IBM’s infringement theory for the ’849 patent is based on more arbitrary

box drawing and therefore fails.⁵

1. The Court has already determined that websites and mobile applications such as the ones provided by Groupon do not infringe the '849 patent as a matter of law.

IBM asserted the '849 patent against Priceline. (*IBM v. Priceline*.) In that case, the Court granted Priceline's motion for summary judgment of non-infringement of the '849 patent. (*See Priceline Order*.) For the same reasons articulated in that order, neither Groupon's website nor its mobile applications infringe any of the asserted claims as a matter of law.

All asserted claims require "storing advertising objects at a store established at the reception system." (*See Ex. 2, claims 1, 1-9, 12-22, and 25 (all asserted claims)*.) For Groupon's website or mobile applications to infringe the claims of the '849 patent, the "storing" steps of the claims "must either be (i) actually performed by, or (ii) directed and controlled by" Groupon. (*IBM v. Priceline*, D.I. 559 ("Order on Reconsideration") at 3.) IBM cannot prove either.

As it did in *Priceline*, IBM contends that the "reception system" of the claims is a user's computer or mobile device. (*IBM v. Priceline*, D.I. 436 at 4-5.) And IBM again claims that the required "storing" is performed by setting "caching parameters" or "cache values." (Shamilo Decl., Ex. 7 ¶¶ 202-205; *Priceline Order* at 20 & n.6.) As the Court found in *Priceline*, IBM's identical theory here is insufficient to establish infringement as a matter of law. Desktop browser caching can be disabled by a user, and for all accused products, "users are not required to enable the caching to use the websites, nor are the browsers or mobile applications contractually required

⁵ IBM's doctrine of equivalents theory again does not apply to any reasons Groupon does not infringe the '849 patent presented herein. Further, IBM's expert [REDACTED] (Schmidt Depo. at 189:24-190:10). IBM should not be allowed to assert a vague doctrine of equivalents theory as a fallback option. *Lear Siegler, Inc. v. Sealy Mattress Co. of Michigan, Inc.*, 873 F.2d 1422, 1425 (Fed. Cir. 1989) ("The party asserting infringement must present 'evidence and argument concerning the doctrine and each of its elements.' The evidence and argument on the doctrine of equivalents cannot merely be subsumed in plaintiff's case of literal infringement." (citations omitted)).

to ensure caching is enabled; users are not penalized for not caching.” (*Priceline* Order at 20.)

With respect to the mobile applications, Dr. Schmidt points to Android and iOS operating system code for the cache, (Shamilov Decl., Ex. 8 ¶¶ 193, 246 n.72) so regardless of whether caching can be disabled:

“(1) caching need not be enabled in order for a user to use [Groupon’s] mobile applications, (2) [Groupon does] not require or ensure that caching is enabled for users of the mobile applications, (3) [Groupon does] not penalize users for using the mobile application without caching, and (4) when enabled, caching is performed by the mobile operating system, a system not controlled by [Groupon].”

(Order on Reconsideration at 3; Ex. 5 ¶¶ 51-56) Groupon does not infringe the ’849 patent for these reasons alone. IBM’s infringement theory, however, is flawed in other respects as well.

2. IBM cannot show that Groupon’s website or mobile applications structure applications for presenting at a first portion and advertising for presenting in a second portion concurrently with the applications as required by the claims.

Similar to the ’967 patent, all asserted claims of the ’849 patent, but for claims 8 and 9, require a first area and a second area of a screen. The Court construed “structuring applications so that they may be presented, through the network, at a first portion of one or more screens of display” as “formatting applications so that they may be presented through the network at a first area of one or more screens of display” and the emphasized portion in the claim element “structuring advertising in a manner compatible to that of the applications so that it may be presented, through the network, *at a second portion of one or more screens of display concurrently with the applications*” as “at a second area of one or more screens of display concurrently with applications.” (CC Order at 6.)

IBM's expert again claims [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] But as California, Texas, and New York are not a single area of this country, a compilation of images and text spread out across a webpage are not “an area of one or more screens of display.” Importantly, these deals— [REDACTED]



(Schmidt Depo. at 148:3-14.) The claims, however, require structuring advertising so that it can be displayed concurrently with applications—applications *and* advertising must be distinct. *See Ethicon Endo-Surgery*, 93 F.3d at 1579. To display A concurrently with B, requires displaying two different things at the same time. It cannot be met by displaying A. But, that is exactly what IBM argues to support its infringement claim. (Schmidt Depo. at 155:11-15 [REDACTED])

[REDACTED]

[REDACTED]

Nor are these deals structured so that they can be presented concurrently with *multiple* applications as the claims require. IBM's expert has provided no evidence to the contrary. Instead, he claims that in Groupon's website, the HTML code for a deal could theoretically be cut out from

one webpage and copied into another webpage, i.e. one could create alternative webpages by copying portions of Groupon’s HTML code. (*Id.* at 152:1-154:2.) According to IBM’s expert, this is sufficient because his “understanding from looking at the claim language that it simply has to be possible to do so.” (*Id.* at 186:14-23.) But that someone could theoretically copy and paste portions of HTML cannot be enough to prove infringement. *Mirror Worlds, LLC v. Apple Inc.*, 692 F.3d 1351, 1360-61 (Fed. Cir. 2012) (“To infringe a method claim, all steps of the claimed method must be performed.”). IBM has no evidence that it actually happens, let alone evidence that the HTML code for a particular deal (an “advertisement” in IBM’s mapping) is used across webpages in what IBM has identified as different applications. But at a minimum, the claims require that the advertisements are structured for concurrent presentation with *multiple* applications. If Groupon does not present advertising with multiple applications—as IBM has no evidence that it does—it cannot structure that advertising for the required presentation with the applications. It cannot infringe the ’849 patent as a matter of law.

3. IBM cannot show that Groupon’s website selectively stores advertising objects as required by the claims.

The Court construed “selectively storing advertising objects at a store established at the reception system,” required by all the asserted claims, as “pre-fetching advertising objects and storing at a store established at the reception system in anticipation of display concurrently with the applications.” (CC Order at 9.) IBM has three alternative theories for how “prefetching” is met by Groupon’s website and mobile applications, and an additional fourth theory that applies only to the mobile applications. Each theory fails as a matter of law.

First, Dr. Schmidt argues that [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] (Ex. 7 ¶ 203; Ex. 8 ¶ 196 (same theory as to Groupon’s mobile applications); *see also* Ex. 7 ¶ 204; Ex. 8 ¶ 197.) In other words, under this theory, [REDACTED]

[REDACTED] Indeed, Dr. Schmidt contends that “[t]here is

[REDACTED] (Ex. 6 ¶ 174.) His opinion is wrong as a matter of law.

According to the claim language itself and the Court’s claim construction, the objects must be pre-fetched to the store at the reception system. (*See* CC Order at 9; Ex. 2, claim 1 (“selectively storing . . . at a store established at the reception system”).) The claims require “selectively storing at a store at the reception system”—the entire step must take place at the reception system. Indeed, the Court noted when it construed this term in the *Priceline* action that the specification describes the pre-fetching as happening at the reception system. *IBM v. Priceline Grp. Inc.*, No. 1:15-cv-00137-LPS, D.I. 234 (D. Del. Oct. 28, 2016); (*see also* Ex. 2 at 3:16-21 (“the user reception system at which the advertising is presented includes facility for storing and managing the advertising so that it can be pre-fetched from the network and staged at the reception system in anticipation of being called for presentation.”); *see also* Ex. 2 at 34:25-27; *id.* at 33:21-27, 33:59-34:3.)

Second, Dr. Schmidt argues that whenever a user’s browser caches a deal image which has already been requested and displayed, such data was pre-fetched because it may be displayed again in the future. (Ex. 7 ¶¶ 205-207; Ex. 8 ¶¶ 232-234 (same theory as to Groupon mobile applications).) But, setting aside that the browser caching data is not an action performed by Groupon or on Groupon’s behalf, storing data (in a cache) *after* it was requested and displayed to a user is not *pre*-fetching as the Court’s construction requires. This theory requires a re-write of the Court’s claim construction to replace “pre-fetching . . . in *anticipation* of display” with mere “fetching.”

Indeed, Dr. Schmidt admitted in his deposition that [REDACTED]

[REDACTED] (Schmidt Depo. at 218:16-23; 220:18-221:2.)

Third, Dr. Schmidt contends that “Groupon’s Website also pre-fetches advertising objects whenever the advertising objects are sent to the user’s browser and not presented immediately on the screen of display,” i.e. when images in a webpage requested by the user are loaded at the user’s computer, but a user must either scroll down the screen or click through a rotating carousel of images on a given webpage to see all of them. (Ex. 7 ¶¶ 208-217; Ex. 8 ¶¶ 235-242 (same theory as to Groupon mobile applications).) This theory improperly equates objects downloaded in response to a user request for *immediate* display on a given page with “pre-fetching” objects “in *anticipation* of display.” This theory is also directly contrary to the disclosure of the ’849 patent, which distinguishes between a reception system retrieving an object that is part of the current page with a “GET” command versus using a “FETCH” command for “objects in anticipation of later use.” (Ex. 2 at 27:8-13.) The specification notes that, unlike regular objects, advertising data is not retrieved in real time, but rather pulled from a queue of previously-fetched ads when an ad is needed for display. (*Id.* at 34:29-31.) Requesting a webpage is not pre-fetching, whether or not the user must scroll down the webpage or click through to view all of the requested content.

IBM’s fourth theory, applied solely to Groupon’s mobile applications, also fails. Dr. Schmidt opines that [REDACTED] meets this limitation. (Ex. 8 ¶ 198.) In support of this theory, Dr. Schmidt identifies [REDACTED]

[REDACTED] However, with respect to Groupon’s iOS applications, Dr. Schmidt identifies three different source code paths, each of which involves a conditional operation that Dr. Schmidt did not confirm was actually active, i.e. he has no evidence that the source code is actually executed by Groupon’s mobile applications. For example, Dr. Schmidt traces a

path through Groupon's code starting with the [REDACTED]

[REDACTED] the method shown below. (*Id.* ¶ 200.)

(*Id.* ¶ 201.) Dr. Schmidt then relies on [REDACTED]

shown in the excerpt above. However, [REDACTED]

[REDACTED] and IBM points to no evidence that it does so. Dr. Schmidt does not address it in his expert report, and, at his deposition, he admitted he did not know whether it was true.

(Schmidt Depo. at 237:18-238:10.) [REDACTED]

[REDACTED] none

of which are addressed by Dr. Schmidt, and all of which [REDACTED]

[REDACTED]⁶ Indeed, some of the statements Dr. Schmidt points to are explicitly labeled

[REDACTED] in the code. For example, Dr. Schmidt relies on the code shown below, which also

[REDACTED] which

Dr. Schmidt does not address.

[REDACTED]

⁶ See, e.g., Ex. 8 ¶ 203

[REDACTED] Schmidt Depo. at 238:8-19; Ex. 8 ¶ 217 [REDACTED]

(Ex. 8 ¶ 204.)

Further, even if IBM could show the deal images were, in fact pre-fetched, they are not the required “advertising objects” of the claims for two reasons. First, they are the content of the purported applications themselves. They are local deals displayed as part of the Local “application” or Goods deals displayed as part of the Goods “application.” (Ex. 7 ¶¶ 94-96.) But, the claims require displaying applications advertising concurrently in separate portions of the screen. Second, the deal images are not even the entirety of what IBM identifies as the purported advertising object; that includes images *and* related text description defined in the HTML document.

(Ex. 7 at ¶ 200 [REDACTED])

[REDACTED] ¶ 201

IBM has no evidence to show infringement of the '849 patent as a matter of law, and if its infringement theory does not fail as a matter of law, then the asserted claims are invalid under § 112 for the same reasons as the asserted claims of the '967 patent.

II. IBM CANNOT SHOW INFRINGEMENT OF THE '601 PATENT AS A MATTER OF LAW.

IBM alleges that Groupon’s website and mobile applications infringe the '601 patent. The '601 patent claims one way of preserving state information in a client–server conversation over a stateless protocol. A stateless protocol, such as HTTP, is one where a server does not keep track of prior requests or relate multiple requests from a single client. To retain that status information, in the '601 patent, state information is recursively embedded by a server in each continuation (e.g., hyperlink) in its response to a client so that when a continuation is selected by the client, the embedded state information is returned back to the server. IBM asserts claims 1, 2, 4, 6, 7-10, 51, 52,

54, and 56-59. All asserted claims depend either from claim 1 or from claim 51. Claim 1 recites five steps (and claim 51 recites similar steps):

- First, a client initiates a conversation with a server and requests a service using the stateless protocol. (Shamilov Decl., Ex. 9 ('601 patent) at 17:66-18:3, 18:11-12.) A “conversation” here is “a sequence of communications between a client and server in which the server responds to each request with a set of continuations and the client always picks the next request from the set of continuations.” (Shamilov Decl., Ex. 10 ¶ 181(b); Joint CC Chart at 25.)
- Second, the server “detect[s]” whether the received request “requires preservation of the state information.”⁷ (Ex. 9 at 18:13-14.)
- Third, “in response to [so] detecting,” the server performs the requested service and identifies “all continuations” in its output. (*Id.* at 18:15-17.) A “continuation” here is “a new request which a client may send to a server, such as, for example, a hyperlink.” (Ex. 10 ¶ 180(a); CC Order at 10.)
- Fourth, the server “recursively embed[s] the state information in all identified continuations.” (Ex. 9 at 18:18-19.) The parties agreed to construe this as “applying a process one or more times to each identified continuation to modify all identified continuations to include state information.” (Ex. 10 ¶ 181(a); Joint CC Chart at 25.)
- Finally, it communicates back to the client the output as modified with embedded state information, so that all following client requests in the conversation provide the state information back to the server. (Ex. 9 at 18:20-23.)

⁷ No analog of this step is present in claim 51.

Accordingly, in the claims, after the requested service has created its output, the output is parsed to identify all continuations and each identified continuation is then modified with to include embedded state information. Groupon's website and mobile applications work quite differently. Indeed, IBM cannot show infringement as a matter of law because Groupon's architecture is fundamentally incompatible with the '601 patent; it does not "detect[]" that state information must be preserved for a given request from a client and it does not "identify[] . . . continuations."

A. Groupon's architecture is incompatible with the '601 patent.

Groupon's architecture [REDACTED]

[REDACTED] (Shamilov Decl., Ex. 11 ("Sood Depo.") at 16:9-22, 86:24-87:12.) [REDACTED]

[REDACTED] (*Id.* at 89:19-23.) [REDACTED]

[REDACTED] (*Id.* at 88:22-23 ("It's a big list.")). [REDACTED]

(Shamilov Decl., Ex. 12 ("Krems Depo.") at 235:9-21; Shamilov Decl., Ex. 13 ("Dunham Depo.") at 169:9-15.) [REDACTED]

[REDACTED] (Dunham Depo. at 120:25-121:3.) [REDACTED]

[REDACTED] (*Id.* at 188:24-189:3.)

Sometimes Groupon [REDACTED]

[REDACTED] IBM's expert claims that this [REDACTED]

[REDACTED] (Shamilov Decl., Ex. 14 ¶ 174 (referring to [REDACTED]

[REDACTED] There is no dispute regarding how

Groupon generates the accused webpages and mobile application content. When a client requests a Groupon webpage, [REDACTED]

[REDACTED] (*See id.* ¶¶ 92, 121; Shamilov Decl., Ex. 15 at 4.) [REDACTED]

[REDACTED] (Dunham Depo. at 157:16-158:7; Ex. 14 ¶ 121-22.) [REDACTED]

[REDACTED]⁸ (Ex. 14 ¶ 35.)

[REDACTED] (*Id.* ¶ 129.) [REDACTED]

[REDACTED] (Ex. 5 ¶ 225.) [REDACTED]

[REDACTED] (*See id.*)

[REDACTED] (Ex. 14 ¶¶ 131,

136; Sood Depo. at 53:2-11.) [REDACTED]

[REDACTED] (Ex. 16 ¶ 131-35; Ex. 5 ¶¶ 222, 225.)

Groupon's webpages are replete with links to other Groupon webpages. Thus, [REDACTED]

[REDACTED] (Ex. 14 ¶¶ 149, 152.)

[REDACTED] (*Id.* ¶ 150.) [REDACTED]

[REDACTED] (*Id.* ¶ 174.) [REDACTED]

⁸ Groupon's mobile applications work similarly, but they call back-end services directly bypassing the ITA. (Shamilov Decl., Ex. 16 ¶¶ 35-36, 109-10; Shamilov Decl., Ex. 17 at 12.) Instead of generating webpages, the mobile applications directly create a user interface, including clickable elements, from the received data. (Ex. 16 ¶¶ 109-11, 113.)

expert himself acknowledges, [REDACTED]; he does not and cannot identify any instance in which [REDACTED] as the claims require. (*Id.* ¶ 183; Ex. 16 ¶ 159 n.5; Schmidt Depo. at 390:4-391:2; cf. Ex. 9 at 12:5-7; Shamilov Decl., Ex. 18 at GROUP-SC-6733:391-96; Weissman Resp. ¶ 228.) In other words, if a Groupon [REDACTED]

By contrast, in the '601 patent, the server first generates its output with the continuations (i.e. hyperlinks), and then sends its output to a “conver[sion]” program that “*modifies* the continuations produced by the service but passes back all other data to the client unmodified.” (*Cf.* Ex. 9 at 11:58-64 (emphasis added); *see also id.* at 18:15-19.) The two architectures thus are fundamentally different.

B. Neither Groupon’s website nor its mobile applications detect when a request requires preservation of state information as required by the claims.

Claim 1 and its dependents require “detecting when the request for a service requires preservation of the state information.” In support of his opinion that Groupon’s website and mobile applications perform this step, IBM’s expert points only to the URLs themselves. (Ex. 14 ¶¶ 101-117; Ex. 16 ¶¶ 90-104.) In other words, his opinion appears to be that because Groupon [REDACTED] it must be detecting when a request requires preservation of state. But he points to no Groupon’s code that performs the required detecting. (*See* Ex. 14 ¶¶ 101-117; Ex. 16 ¶¶ 90-104; Ex. 6 ¶¶ 298-99.) He does refer generically to “backend source code”—but cites no lines, no files, and no timeframes. (Ex. 14 ¶ 114; Ex. 16 ¶ 100.) Because there are none. Indeed, he acknowledged during his deposition that [REDACTED] (Schmidt Depo. at 342:15-343:5, 347:17-25, 459:21-460:7.) IBM cannot establish that the accused website and mobile applications detect when a request requires

preservation of state information as a matter of law.

C. Neither Groupon’s website nor its mobile applications identify or embed state information in “all continuations” as required by the claims.

The asserted claims further require “identifying *all* continuations in an output from said service” and “recursively embedding the state information in all identified continuations.” (Ex. 9 at 18:15-19 (claim 1), 23:56-59 (claim 51).) The Court construed the “embedding” step as “applying a process one or more times to each identified continuation to modify all identified continuations to include state information,” and the Court adopted this construction. (CC Order at 24.) IBM cannot show that either the accused mobile applications or the website performs these steps.

1. Neither Groupon’s website nor its mobile applications identify all continuations as required by the claims.

Groupon does not identify continuations in any “service output,” as the claims require. In the ’601 patent, the system combs the output of the requested service to find all continuations and then modifies each of them by adding state information. (*Id.* at 9:62-10:1, 12:5-7, 18:15-19; 23:56-57.) Instead of identifying continuations in an output, however, Groupon [REDACTED] [REDACTED] (See Ex. 14 ¶¶ 183-84, 187.) Thus, IBM does not and cannot cite any code that identifies *continuations*. (See *id.* ¶¶ 171-183.)

Faced with this reality, IBM’s expert maps this element to the process of [REDACTED] [REDACTED] [REDACTED] (*Id.* ¶¶ 128-30, 148-50; Ex. 6 ¶¶ 308-09.) This theory suffers from at least two flaws. First, a [REDACTED] [REDACTED]; as Dr. Schmidt himself admits it is a [REDACTED] [REDACTED] (Schmidt Depo. at. 362:21-363:4, 370:4-13, 379:16-380:6.) Second, [REDACTED] The process that Dr. Schmidt maps to this

claim element simply traverses the [REDACTED]

[REDACTED] (Cf. Ex. 5

¶¶ 225-26.) Nor does [REDACTED]

[REDACTED] (See, e.g., Ex. 14 ¶ 149 [REDACTED]

[REDACTED]) IBM has no evidence that the accused Groupon's technology maps to this claim element.

2. IBM cannot show that the mobile applications perform the required embedding.

For the mobile applications, IBM's theory is fundamentally flawed at the outset because it alleges that the "embedding" step occurs at the client, but [REDACTED]

[REDACTED] (Schmidt Depo. at 463:1-5, 490:4-9; 498:14-499:3.) Unsurprisingly, IBM fails to show that during the purported "embedding" step that Groupon's mobile applications ever modify a continuation, as required by the Court's construction. (See Ex. 10 ¶ 181(a).) Indeed, Dr. Schmidt acknowledges that the [REDACTED]

[REDACTED] (Compare, e.g., Ex. 16 ¶ 120 with Schmidt Depo. at 482:10-483:7, 485:6-14.) He argues instead that by embedding that [REDACTED]

(Schmidt Depo. at 486:21-487:23.) But that purported "modification" does not embed the state information as the claim requires. (Joint CC Chart at 25 ("applying a process one or more times to each identified continuation to modify all identified continuations to include state infor-

mation’’)). IBM does not and cannot explain how [REDACTED]

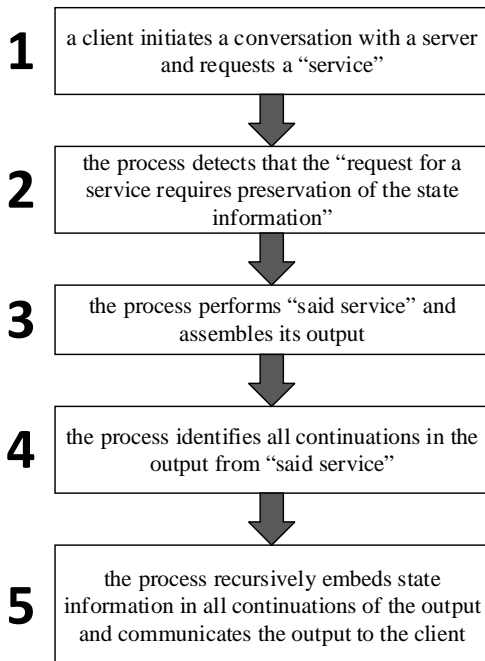
[REDACTED] (*Id.* at 487:24-488:13.)

Further, claim 1 requires “communicating the output to the client, in response to said step of embedding” and claim 51 that requires “communicating a response including the continuations and embedded state information.” If for the mobile applications, the embedding takes place at the client as IBM’s expert contends, there cannot be a communication to the client in response to that embedding, as the client already received the communication before the purported “embedding.”

[REDACTED] That is not what the claim language requires. Communicating output or a response *to* a client simply cannot be the same as sending a signal *within* what IBM has identified as a client.

3. IBM’s theory for the alleged infringement by the website is not based on the claim language.

IBM’s infringement theory for Groupon’s website is not rooted in the claim language and, accordingly, fails. The following figure illustrates the simplified steps of claim 1.



Claim 51 has similar steps but for step 2. The claim language makes clear that the requested “service” in steps 1 and 2 above is the same “service” that is requested by the client and performed in step 3 and whose output is processed in steps 4 and 5. IBM’s expert, however, switches his mapping of the claimed “service” midway through the claim even though he acknowledges that

(Schmidt Depo. at 357:5-11.) He states that the request for a service of step 1 is a request for a Local Deal webpage, and thus the service in his mapping is one that returns the Local Deal webpage. (*Id.* at 360:11-17; Ex. 14 ¶ 109.) He maps the service in step 4, however, to

he mentions nowhere else in his analysis of the other steps of the claim. (Ex. 14 ¶¶ 101-117, 131; Ex. 6 ¶ 305; Schmidt Depo. at 359:16-360:17.) And

(Schmidt Depo. at 369:21-370:3 (emphasis added).) It therefore *cannot* be the service of the “detecting” step.

[REDACTED] of the claims for at least three additional reasons. First, as Dr. Schmidt himself admits, [REDACTED] [REDACTED] yet the claim requires that the service of the claim be requested by the user. (*Id.* at. 362:21-363:4, 370:4-13, 379:16-380:6.) Second, [REDACTED] [REDACTED] (Ex. 14 ¶ 132; Ex. 5 ¶¶ 222-23.) [REDACTED] that the claims require is communicated to the client. Third, as discussed above [REDACTED] [REDACTED] (Ex. 5 ¶ 225.). The claims, however, require the output to include continuations.

Further, for the claimed methods to “preserv[e] state information in a conversation,” the claimed “output” must contain, at a minimum, all continuations to be sent to the client and all those continuations must include state information. (*See* Ex. 9 at 9:59-10:3, 17:66-67, 23:50-51.) This requirement is captured in the “wherein” clauses of the independent claims. Claim 1 recites “wherein the state information is preserved and provided to *all* services for the duration of *the conversation*,” which under the parties’ agreed construction, continues whenever a client “picks the next request from the set of continuations” in the server’s response. (Joint CC Chart at 25; Ex. 9 at 18:21-23) (emphases added).) Claim 51 similarly recites “wherein the continuations enable another service request and one of the continuations must be invoked to continue the conversation.” Thus, for the state to be preserved during a conversation, every continuation presented to the user must include state information, otherwise a user’s selection of a stateless continuation would continue the *conversation* without preserving the state information. (Ex. 5 ¶ 233.) That is contrary to the core goal of the ’601 patent and not permitted by the claims.

And yet, [REDACTED]

[REDACTED] (*See, e.g., id.* ¶ 238.) That is because Groupon [REDACTED]
 [REDACTED] See Sood Depo. at 16:9-22,
 86:24-87:12; Dunham Depo. at 167:13-19.) And even where it [REDACTED]
 [REDACTED]
 [REDACTED]
 (See Ex. 5 ¶¶ 193, 212, 238.)

4. IBM's doctrine of equivalents theory fails.

IBM asserts that, to the extent that Groupon does not identify all continuations in the output and does not recursively embed state information in them, each of these limitations is met under the doctrine of equivalents. (Ex. 14 ¶ 164.) Specifically, IBM contends that the functions of identifying all continuations and embedding state therein are substantially the same as [REDACTED]
 [REDACTED] (Ex. 14 ¶¶ 165, 195.) IBM similarly argues that the result is substantially the same—to [REDACTED]
 [REDACTED]
 [REDACTED] (*Id.* at ¶¶ 167, 197 (same language).)

But permitting only [REDACTED]
 [REDACTED] defeats the entire purpose of the claims. It is not the same function or result, nor is it close enough to what is claimed. Indeed, it is incompatible with the “wherein” clauses of the claims. Because a conversation continues as long as a user is selecting a continuation, allowing *any* user-selectable continuation that does not contain state information will fail to preserve state “for the duration of the conversation,” as required by claim 1. Similarly, if only some continuations include state, then it is no longer the case that “one of the continuations [which include state] must be invoked to continue the conversation,” as required by claim 51, as the user can select a stateless continuation.

Although IBM's expert notes that the Court previously found a triable issue of fact on whether the "all continuations" requirement could be met under the doctrine of equivalents where "substantially all or nearly all" continuations are identified (*Priceline* Order at 24), here, IBM'S expert does not point to "substantially or nearly all" continuations. Instead, he points to only one or two continuations which he contends meet the claim limitations. (*See* Ex. 14 ¶¶ 148-154, 183, 187.) Thus, the Court's previous opinion in *Priceline* does not apply to IBM's theory in this case. IBM cannot show that Groupon infringes the '601 patent as a matter of law.

III. IBM CANNOT SHOW INFRINGEMENT OF THE '346 PATENT AS A MATTER OF LAW.

IBM accuses Groupon of infringing claims 1-3, 5, 8, 10, 12, and 13 of the '346 patent. Claims 1, 3, 12-15, and 18 were found unpatentable by the Patent Trial and Appeal Board on August 7, 2017. (IPR2016-00608, Paper No. 67; IPR2016-00609, Paper No. 42.)⁹ Thus, the remaining claims asserted against Groupon in this action are dependent claims 2, 5, 8, and 10. IBM cannot show infringement of these four claims as a matter of law.¹⁰

A. Overview of the '346 Patent

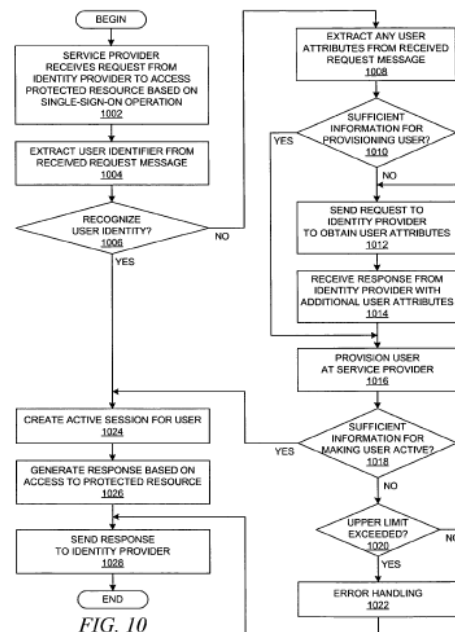
"Single-sign-on" ("SSO") allows users to sign on to one server or service and then have access to other services or servers without signing in again, even if those resources are protected and not generally accessible to the public. (Shamilov Decl., Ex. 19 ('346 patent) at 1:53-61.) The '346 patent describes a system that allows a user to access a service via SSO even if the user does not have a preexisting account with the service provider by creating the account dynamically or "on the fly." (*Id.* at 2:53-3:2; 31:3-5; 32:37-46; 33:9-37.)

⁹ IBM has appealed both of the PTAB's decisions to the Federal Circuit. *See IBM Corp. v. Iancu*, Nos. 18-1065, 18-1066 (filed Oct. 17, 2017).

¹⁰ Claims 8 and 10 further depend from claim 5, and claim 13 further depends from claim 12.

The '346 patent describes that an authenticated user with a first system (an “identity provider”) follows a link to a protected resource that requires a user account and authentication at a second system (a “service provider”). (*See id.* at 31:37:55-59; 40:48-41:21.) Instead of receiving immediate access to the protected resource, the user’s browser is redirected to an SSO process at the identity provider. (*Id.*) Once the user signs-in and the identity provider confirms the user’s identity, it redirects the browser to the service provider with the protected resource and provides to the service provider an SSO response that authenticates the user. (*Id.* at 41:21-46.) Because the service provider requires an account, which the user

does not yet have, the service provider extracts the user data from the SSO response and attempts to create an account for the user. (*Id.* at 36:4-30; 41:46-52.) If the service provider determines that the SSO response contains insufficient information about the user to create a user account, the service provider requests additional information (“attributes” of the user) from the identity provider. (*See id.*; *see also id.* at 36:42-67, 38:4-22, Fig.



10 (reproduced here).) Once the additional information

is received, the service provider creates a user account, and then gives the user access to the requested protected resource. (*Id.* at 37:15-27, 38:43-39:6, 41:53-59.)

B. Groupon’s website and mobile applications do not infringe the ’346 patent as a matter of law.

IBM accuses a feature of Groupon’s website and mobile applications that allows users to create Groupon accounts by signing into the system with either their Facebook or Google account credentials. If a user elects to sign-in via a Facebook or Google account, the user is prompted to

enter Facebook or Google credentials, which triggers the single-sign-on exchange of information between Facebook or Google and Groupon. (*See* Shamilov Decl., Ex. 5 ¶ 294; Shamilov Decl., Ex. 20 ¶ 68, Shamilov Decl., Ex. 21 ¶ 61.) Specifically, once the user is authenticated by Facebook or Google, the Facebook or Google system provides Groupon with an opaque authentication token for that particular user. (*See* Shamilov Decl., Ex. 5 ¶¶ 311-13 (describing Groupon’s SSO processes with Facebook and Google.) [REDACTED]

[REDACTED] (*See id.*) This feature does not practice each and every limitation of claims 2, 5, 8, and 10 of the ’346 patent and does not infringe as a matter of law.¹¹

1. IBM cannot show that Groupon’s website or mobile applications create an alias identifier at a first system as required by claim 2.

Claim 2 of the ’346 patent requires “creating an alias identifier for the user at the first system after triggering the single-sign-on operation.” (Ex. 19, claim 2.) According to IBM’s expert himself, Groupon does not perform this step.

In his opening report, [REDACTED]

¹¹ The parties agreed to the following constructions of terms relevant to the disputed claims: “single-sign-on operation(s)” means “an authentication process whereby the user is subsequently not required to perform another authentication operation during a particular user session;” “federated computing environment” means “a set of distinct entities, such as enterprises, organizations, institutions, etc., that cooperate to provide a single-sign-on, ease-of-use experience to a user, wherein the enterprises need not have a direct, pre-established, relationship defining how and what information to transfer about a user;” “user authentication” means “the process of validating a set of credentials that are provided by a user or on behalf of a user;” and “protected resource(s)” means “an application, an object, a document, a page, a file, executable code, or other computational resource, communication-type resource, etc., identified by a Uniform Resource Locator (URL), or more generally, a Uniform Resource Identifier (URI), that can only be accessed by an authenticated and/or authorized user.” (*See* Joint CC Chart at 27-28.)

[REDACTED]

[REDACTED]

[REDACTED] Because Facebook or Google perform the required step, not Groupon, Groupon cannot infringe. (*See* Shamilov Decl., Ex. Ex. 5 ¶¶ 298-304.)

Realizing that his admission confirmed that Groupon does not infringe, in his reply report, Dr. Schmidt came up with a new theory that because [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] But storing an “alias identifier” received from another system is not “creating” it. *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387 (Fed. Cir. 1992) (“Claim interpretation is a question of law amenable to summary judgment”); *Phonometrics, Inc. v. N. Telecom Inc.*, 133 F.3d 1459, 1464 (Fed. Cir. 1998). And even if it was, IBM’s new theory still does not work. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Neither Groupon’s website nor its mobile applications infringe claim 2 as a matter of law.

2. IBM cannot show that Groupon’s website and mobile applications send a request message in response to a determination by Groupon that it lacks sufficient user attribute information to create a user account.

Claim 5 and claims 8 and 10 that depend on claim 5 require that “in response to a determination at the second system that the second system does not have sufficient user attribute information to complete creation of a user account for the user at the second system, sending a request

¹² IBM does not allege joint infringement of the ’346 patent and has provided no theory as to why Facebook or Google’s creation of alias identifiers should be attributable to Groupon.

message from the second system to the first system to retrieve user attribute information.” (Ex. 19, claim 5.) Thus, to perform this step, Groupon’s system must determine that it has insufficient user attribute information. (Ex. 19 at 36:4-30, 38:4-15, 42:12-34, Fig. 10 (step 1012), 36:42-67, 37:28-47.) No such determination is performed by Groupon and IBM points to none; nor can it. And that is because Groupon’s website and mobile applications [REDACTED]

[REDACTED]

[REDACTED]

(*See* Shamilov Decl., Ex. 5 ¶¶ 309-10.)

As with claim 2, the parties do not dispute the operation of the relevant technology, only whether that operation satisfies the requirements of the claim. With respect to Facebook, the relevant operation is as follows: When the user signs in using Facebook credentials, Facebook sends Groupon an opaque access token. [REDACTED]

[REDACTED] (*See* Dunham Depo. at 27:25-28:23, 26:25-27:5; *see also* Shamilov Decl., Ex. 22 (“Breen Depo.”) at 120:16-123:17.) Thus, Groupon [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] (*See* Shamilov Decl., Ex. 5 ¶ 311.)

With respect to Google, Groupon follows two sets of relevant operations. The first one called [REDACTED] is as follows: Once the user gives permission for Google to share the user’s information with Groupon, the Google SDK provides [REDACTED]

[REDACTED] (*See* Shamilov Decl., Ex. 23.) [REDACTED]

[REDACTED] (*See id.*; Breen Depo. at

143:7-155:24.) With that access token, [REDACTED]

[REDACTED] (*Id.*; *see also* Shamilov Decl., Ex. 24 at GROUP0007303; Dunham Depo. at 142:12-144:19 (confirming that document accurately summarizes the login process using Google credentials).) Thus, here, as with the Facebook operation, [REDACTED]

[REDACTED] (*See* Shamilov Decl., Ex. 5 ¶ 312.)

The second Google operation, called [REDACTED] is as follows: Instead of receiving a one-time authorization code, the Google SDK receives an ID token that it sends [REDACTED]

[REDACTED] Once received, [REDACTED]

[REDACTED] (*See* Breen Depo. at 143:7-155:24.) [REDACTED]

[REDACTED] (*Id.*) Here, again, Groupon's system does not determine whether it has sufficient information as required by the claims. (*See* Shamilov Decl., Ex. 5 ¶¶ 313.) But even if [REDACTED] is the determination required by the claims, the Groupon system does not "send a request message . . . to retrieve user attribute information" and "receive . . . a response message that contains user attribute information," as the claims require; instead, [REDACTED]

Notably, IBM's expert admitted during his deposition [REDACTED]

[REDACTED]

[REDACTED] To salvage his infringement theory, during his deposition, Dr. Schmidt claimed that [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] (See *id.* at 282:1-12, 286:18-289:20, 295:23-296:2, 303:2-18, 306:5-14.) But, the required determination is part of a method step to be performed “for managing of user authentication within a distributed data processing system.” When programming the system, the engineers were not performing this method. Nor were they the second system of the claims. IBM cannot prove infringement of claims 5, 8, and 10.

IV. THE '601 PATENT IS NOT ENTITLED TO A PRIORITY DATE OTHER THAN ITS FILING DATE AS A MATTER OF LAW.

To overcome two prior art references identified by Groupon,¹³ IBM claims that the '601 patent is entitled to a priority date of “on or around January of 1996”—five months earlier than the patent’s filing date. But IBM lacks sufficient evidence to establish a prior invention date as a matter of law.

“Priority of invention and its constituent issues of conception and reduction to practice are questions of law predicated on subsidiary factual findings.” *Singh v. Brake*, 317 F.3d 1334, 1340 (Fed. Cir. 2003). It is IBM’s “burden to come forward with evidence to prove entitlement to claim priority to a filing date that predates the filing date of the patent.” *Fairchild Semiconductor Corp. v. Power Integrations, Inc.*, 100 F. Supp. 3d 357, 368 (D. Del. 2015) (citing *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1305-06 (Fed. Cir. 2008)). To do so, IBM must show, by clear

¹³ These references are a book titled *Spinning the Web* that was published on February 23, 1996 and U.S. Patent No. 6,016,484, filed on April 26, 1996. (Shamilov Decl., Exs. 25-26.) IBM does not dispute the respective publication date and filing date of these references. (Shamilov Decl., Ex. 27 at ¶ 1569; see generally *id.* at ¶¶ 1413-1780.)

and convincing evidence, (1) conception of the invention and reasonable diligence in reducing the invention to practice up to the filing date of the '601 patent or (2) actual reduction to practice of the invention before the '601 patent was filed. *Round Rock Research, LLC v. Sandisk Corp.*, 81 F. Supp. 3d 339, 347 (D. Del. 2015); *Kenexa Brassring, Inc. v. Taleo Corp.*, 751 F. Supp. 2d 735, 753 (D. Del. 2010) (“The party alleging prior invention must establish prior invention by clear and convincing evidence.”) (citing *Apotex USA, Inc. v. Merck & Co.*, 254 F.3d 1031, 1037–38 (Fed. Cir. 2001))). IBM cannot do either.

To support its claims that the '601 patent is entitled to a priority date [REDACTED] [REDACTED] IBM relies on deposition testimony of the sole inventor of the patent, Arun, Iyengar, and source code files that he wrote. (Shamilov Decl., Ex. 28; Ex. 27 ¶¶ 1345-1359).¹⁴ But to prove conception, IBM must have “independent corroborating evidence in addition to [the inventor’s] own statements and documents.” *Martek Biosciences Corp. v. Nutrinova, Inc.*, 579 F.3d 1363, 1375 (Fed. Cir. 2009) (citation omitted); *Brown v. Barbacid*, 276 F.3d 1327, 1335 (Fed. Cir. 2002) (“an inventor’s own unwitnessed documentation does not corroborate an inventor’s testimony about inventive facts”); *see also Alexsam, Inc. v. Gap, Inc.*, 621 F. App’x 983, 992 (Fed. Cir. 2015). Indeed, conception “must be proven by evidence showing what the inventor has disclosed *to others*.” *Cordance Corp. v. Amazon.com, Inc.*, 658 F.3d 1330, 1334 (Fed. Cir. 2011) (emphasis added, citation omitted). IBM has no such evidence.

The source code files IBM relies on were [REDACTED]

[REDACTED].¹⁵

¹⁴ *See also IBM v. Priceline*, Iyengar Depo. at 116:2-14 (inventor testifying that [REDACTED] [REDACTED] (Shamilov Decl., Ex. 29.)

¹⁵ The files also do not constitute a complete operative invention legally sufficient to constitute “conception.” *Singh*, 317 F.3d at 1340 (“Conception is the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention” and is “complete only

Kenexa, 751 F. Supp. 2d at 760–61 (analogizing inventor’s source code files to an “unwitnessed inventor’s notebook” in finding that they “fail[ed] to provide sufficient independent corroboration”). And neither their dates of creation or modification change this result. (Ex. 27 ¶¶ 1351-1359 ([REDACTED])

[REDACTED] As explained in *Kenexa*, because “timestamps can be easily modified,” they are unreliable and legally insufficient to prove a prior invention date. 751 F. Supp. 2d at 760. That such timestamps are unreliable is particularly true here. Every source code file, but one, shows [REDACTED] (Ex. 27 ¶¶ 1351-1359.) Additionally, the [REDACTED] on which Dr. Schmidt heavily relies [REDACTED]

[REDACTED] (Ex. 27 ¶ 1351; Shamilov Decl., Ex. 31.) As in *Kenexa*, IBM’s attempt to establish the dates of conception and reduction to practice based “on timestamped source code files, as well as the testimony of [the inventor] . . . is insufficient . . . as a matter of law.” 751 F. Supp. 2d at 760.

Nor does IBM have sufficient evidence to show “continuous diligence” in reducing the invention to practice throughout the entire “critical period,” from just prior to *Spinning the Web*’s publication date of February 23, 1996 and the date of actual or constructive reduction to practice of the invention. *See Perfect Surgical Techniques, Inc. v. Olympus Am., Inc.*, 841 F.3d 1004, 1009 (Fed. Cir. 2016). First, any inventor’s alleged work on drafting the patent application is—as a matter of law—insufficient to establish nearly four months of diligence between February 22, 1996 and the ’601 patent’s filing date. *L-3 Commc’ns Corp. v. Sony Corp.*, No. 10-734-RGA, 2013 WL 5942521, at *2 (D. Del. Oct. 16, 2013). Second, any inventor testimony regarding diligence must

when the idea is so clearly defined in the inventor’s mind that only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation.” (citations and quotations omitted)); (Shamilov Decl., Ex. 30 at ¶¶ 190-197).

be corroborated. *Price v. Symsek*, 988 F.2d 1187, 1196 (Fed.Cir.1993) (“As with the conception element . . . corroboration is required to support [the inventor’s] testimony regarding communication and reasonable diligence.”). IBM has no such corroboration.

And to the extent IBM is asserting that its inventor’s source code files represent a prior actual reduction to practice, that claim too fails as a matter of law. An actual reduction to practice requires that (1) the inventor constructed an embodiment or performed a process that met all the limitations of the claim; and (2) that he determined the invention would work for its intended purpose. *Mycogen Plant Sci. Inc. v. Monsanto Co.*, 243 F.3d 1316, 1332 (Fed. Cir. 2001). IBM has no evidence that the source code that it relies on was a complete working program, let alone a program that performed all of the steps of the asserted method claims. Nor could it. As explained by Groupon’s expert, [REDACTED]

[REDACTED] And Dr. Iyengar himself testified that it would be [REDACTED]

[REDACTED]¹⁶ (Ex. 29 at 51:11-17.) “Proof of actual reduction to practice requires more than theoretical capability” *Newkirk v. Lulejian*, 825 F.2d 1581, 1583 (Fed. Cir. 1987). It requires showing that the invention “actually existed and worked for its intended purpose,” (*id.*) and requires “the existence of sufficient evidence to corroborate inventor testimony” on this issue (*Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1169 (Fed. Cir. 2006)). *See also In re Garner*, 508 F.3d 1376,

¹⁶ Dr. Iyengar also testified that there were [REDACTED]

(Ex. 29 at 49:22-51:19.) Dr. Iyengar further testified that he [REDACTED] (*Id.* at 50:13-18.)

1381 (Fed. Cir. 2007) (“It is also necessary to corroborate that the device worked for its intended purpose.”). Indeed, in some instances, even showing that the implementation was tested is required because “without such testing there cannot be sufficient certainty that the invention will work for its intended purpose.” *Z4 Techs., Inc. v. Microsoft Corp.*, 507 F.3d 1340, 1352 (Fed. Cir. 2007) (citation omitted). IBM has no such proof.

Because IBM has not provided adequate evidence of an earlier invention date, the ’601 patent is not entitled to any priority date other than its filing date of June 7, 1996 and the Court should enter summary judgment finding that. *Proctor & Gamble Co. v. Teva Pharm. USA, Inc.*, 566 F.3d 989, 998-99 (Fed. Cir. 2009).

CONCLUSION

For the foregoing reasons, Groupon respectfully requests the Court to enter summary judgment (1) of non-infringement of the four asserted patents, (2) that the priority date of the ’601 patent is its filing date, and (3) that the Filepp patents are indefinite if it finds issues of material fact as to the infringement allegations for those patents.

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